

**A GENOMICS ENGINE**

REPLACEMENT SHEET

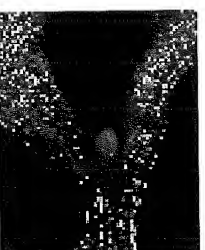
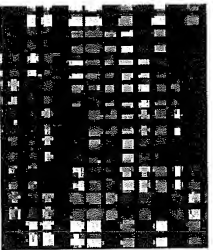
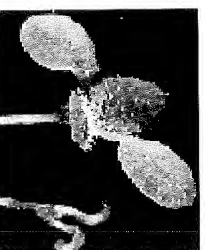
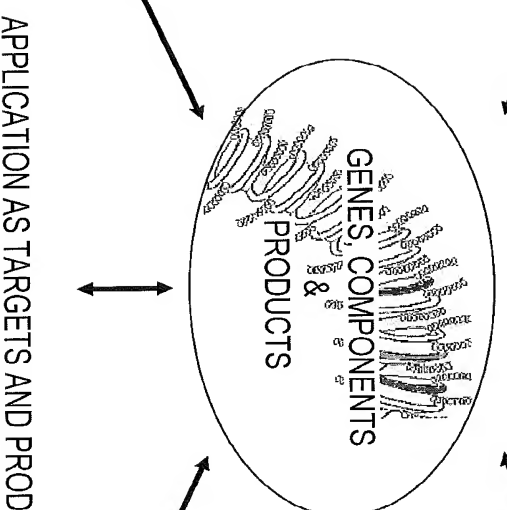
(1) POLYPEPTIDE FUNCTIONAL ANALYSIS

(2) DIFFERENTIAL EXPRESSION (MICROARRAYS)

(5) FINDING AND CHARACTERIZING PROMOTERS

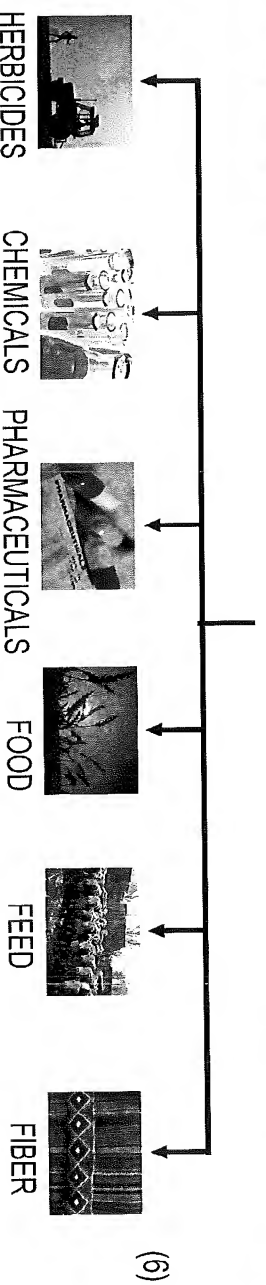
(3) GENE DISRUPTION (KNOCK-OUT)

(4) ECTOPIC GENE EXPRESSION (KNOCK-IN)



APPLICATION AS TARGETS AND PRODUCTS

FIG.1



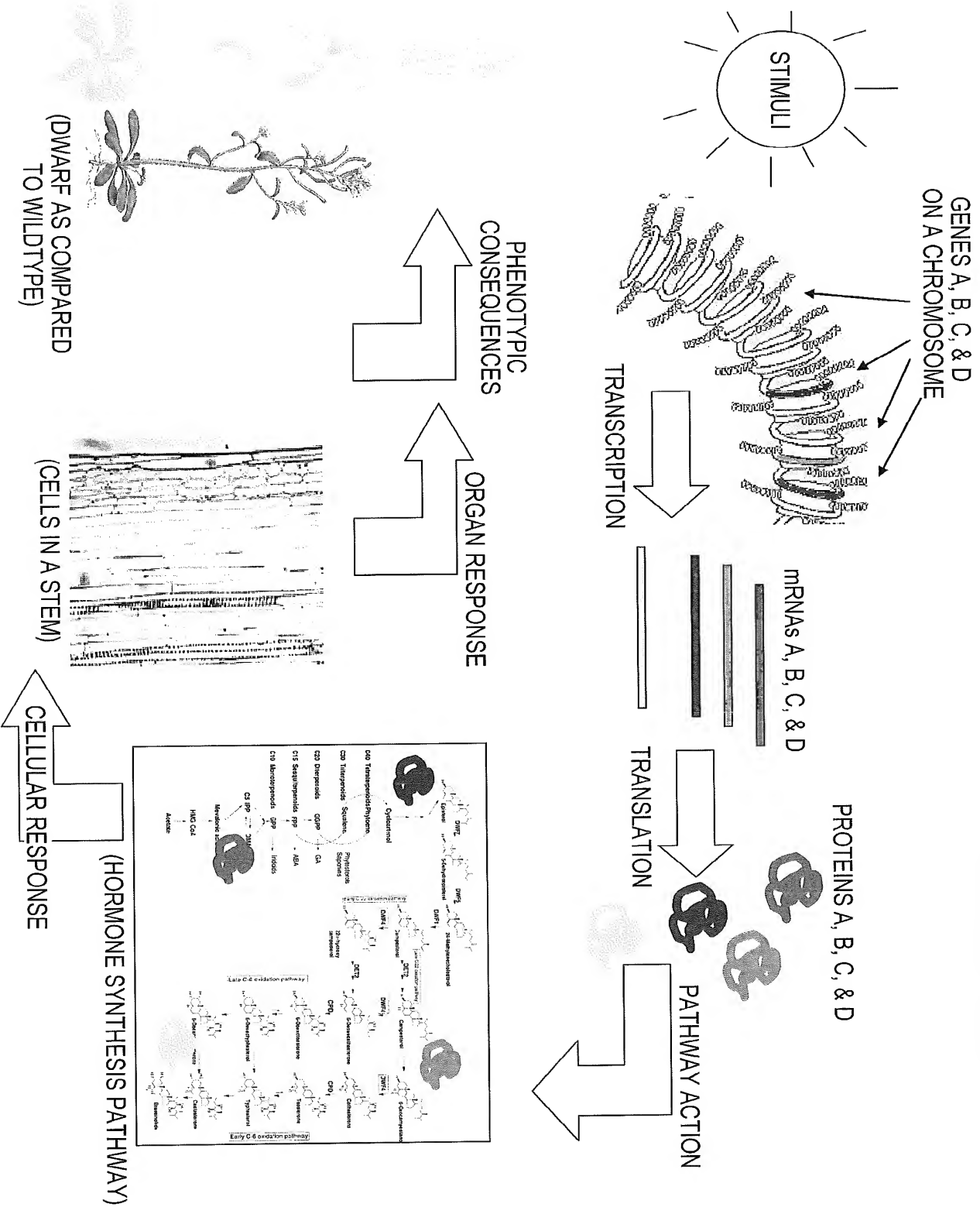
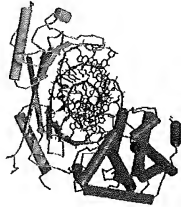


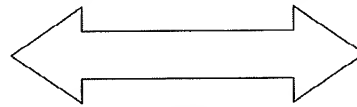
FIG.2

**INTEGRATION OF DATA ACROSS SPECIES TO LINK  
GENE PRODUCTS AND PHENOTYPES**

ARABIDOPSIS  
PROTEIN

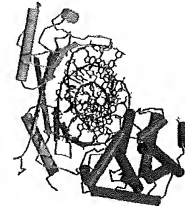


SIMILAR SEQUENCE  
&  
SIMILAR STRUCTURE



THUS  
SIMILAR FUNCTION

MAIZE  
PROTEIN



ARABIDOPSIS

**FUNCTIONS FROM ARABIDOPSIS TO CORN**



OXIDASE  
DROUGHT RESPONSIVE  
SEED PROTEIN  
EMBRYO LETHAL



MAIZE

**FIG.3**

REPLACEMENT SHEET

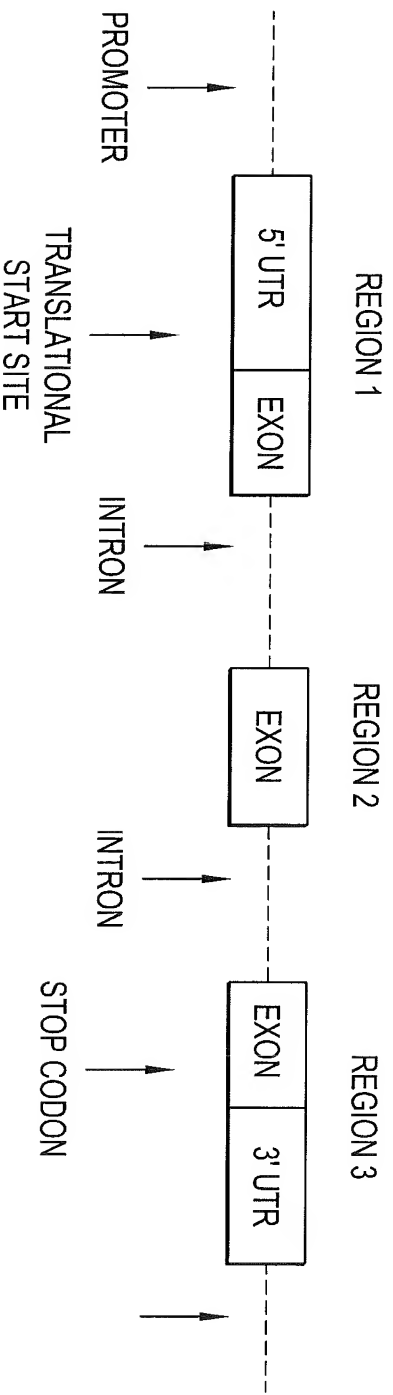


FIG.4

REPLACEMENT SHEET

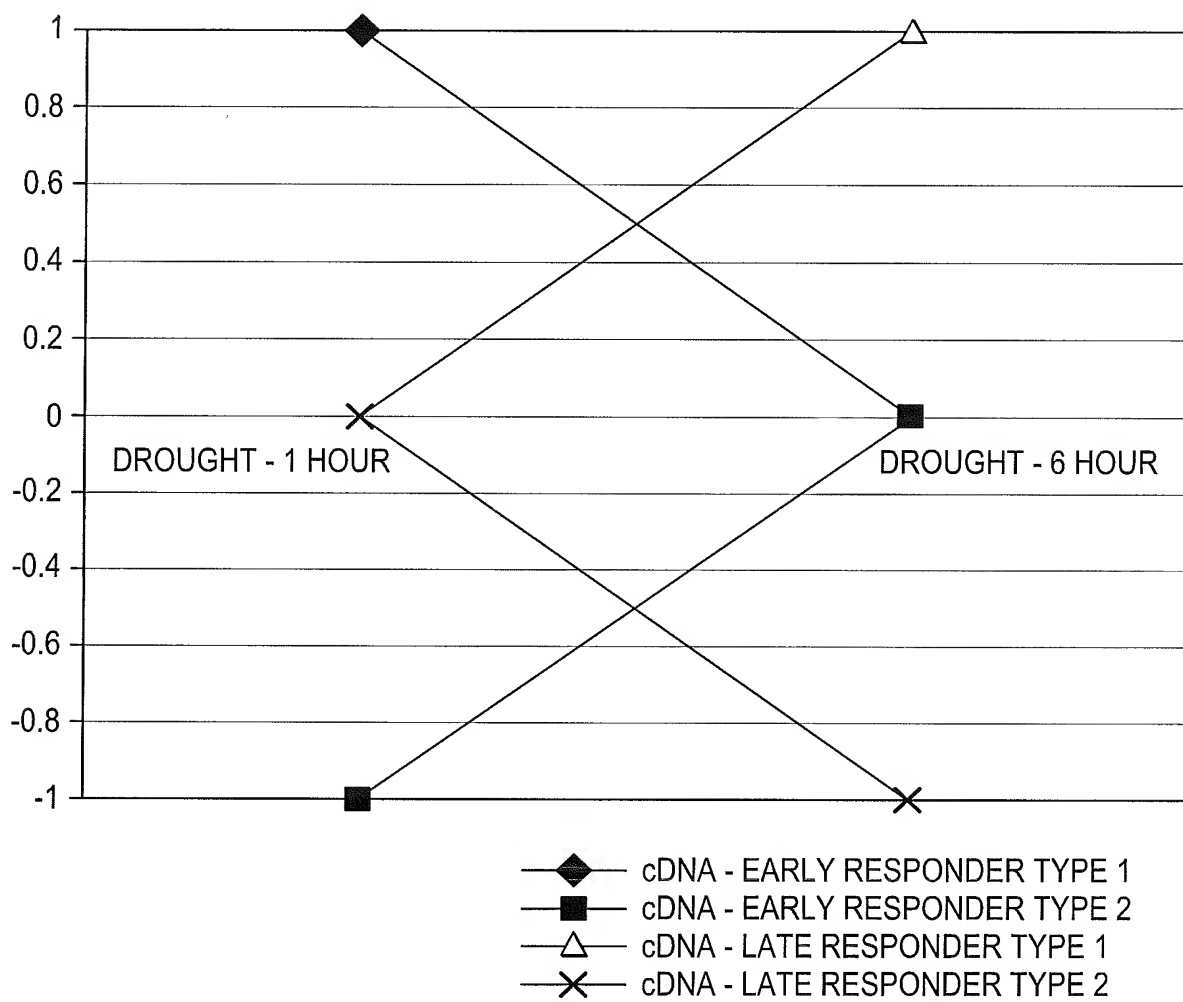


FIG.5

REPLACEMENT SHEET

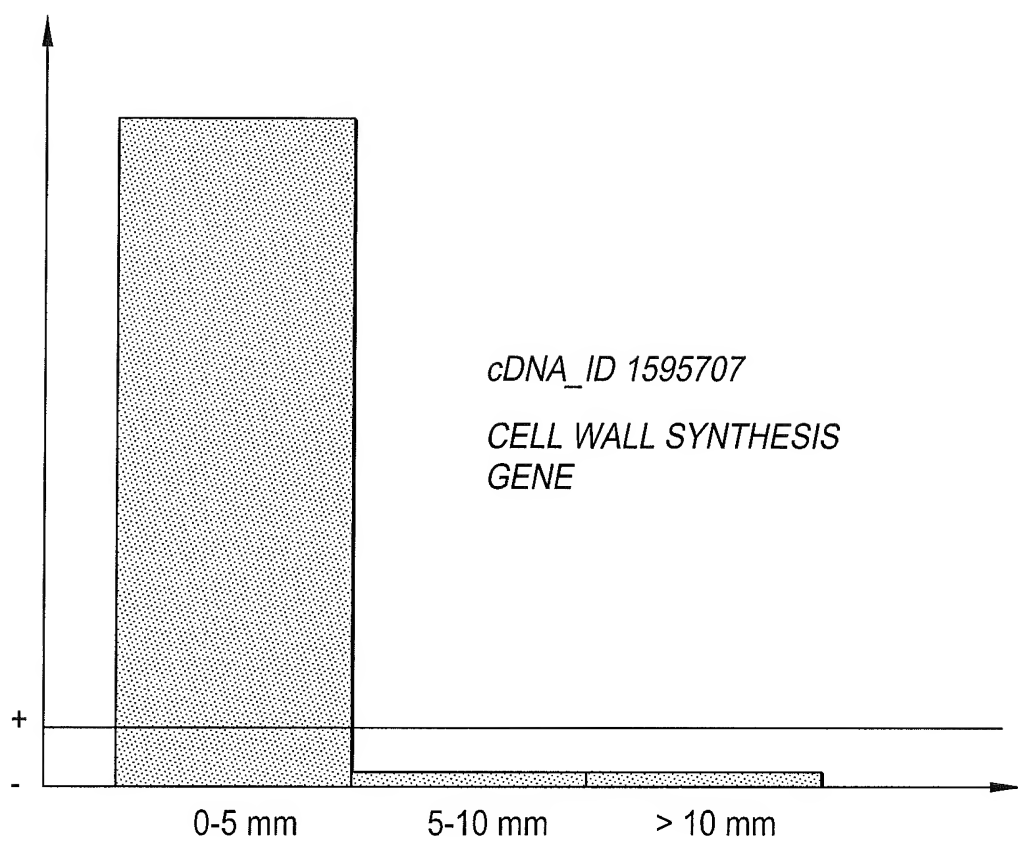


FIG.6

REPLACEMENT SHEET

# SCHEMATIC OF A GENE

## REPLACEMENT SHEET

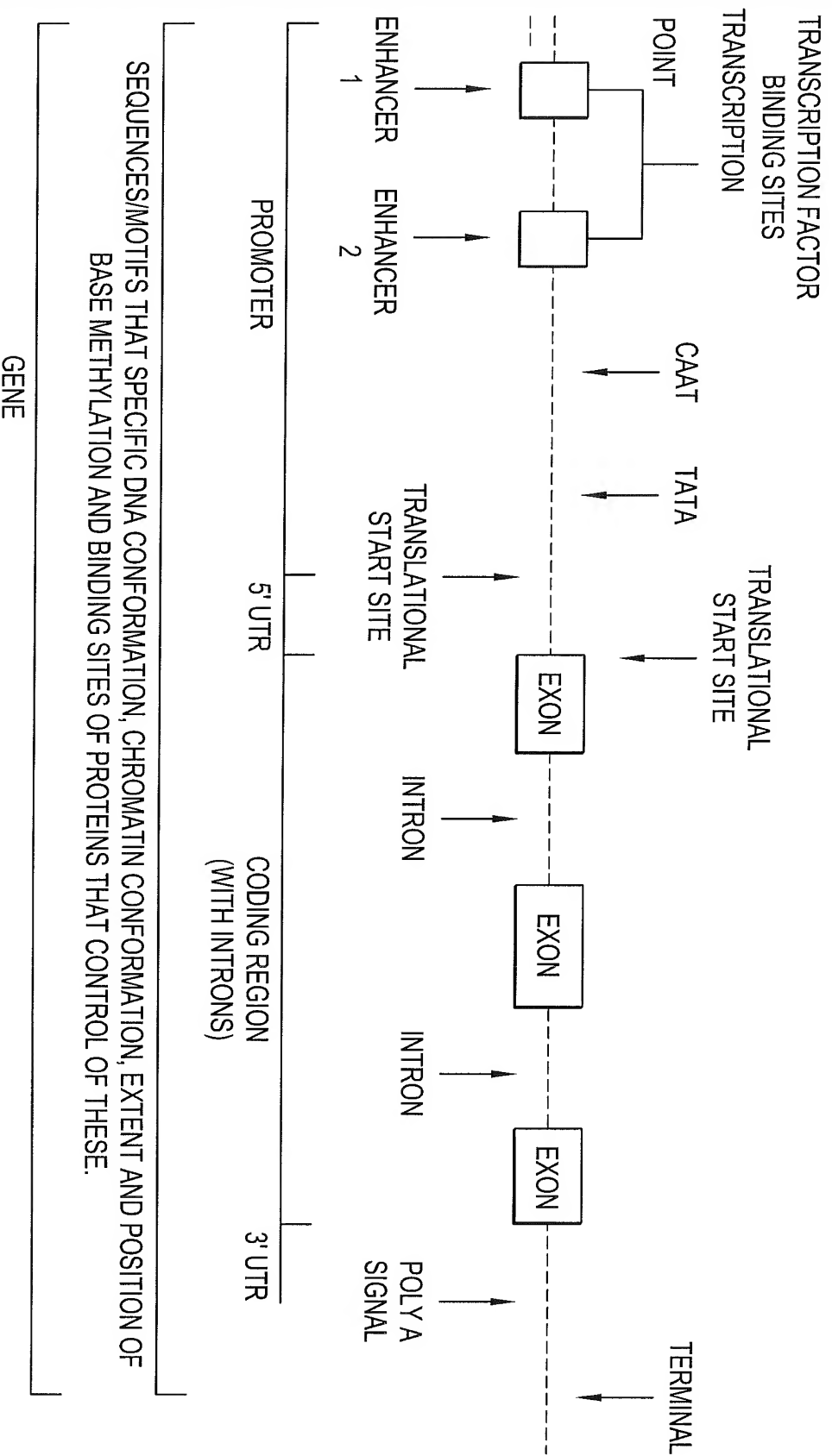


FIG.7